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| 27572                            | 7590        | 01/21/2009           |                     |                  |
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| EXAMINER                         |             |                      |                     |                  |
| COOLEY, CHARLES E                |             |                      |                     |                  |
| ART UNIT                         |             | PAPER NUMBER         |                     |                  |
| 1797                             |             |                      |                     |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/556,648

**Applicant(s)**

WEISS ET AL.

**Examiner**

Charles E. Cooley

**Art Unit**

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 November 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date 20051110

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **NON-FINAL OFFICE ACTION**

1. **This application has been assigned to Technology Center 1700, Art Unit 1797 and the following will apply for this application:**

Please direct all written correspondence with the correct application serial number for this application to **Art Unit 1797**.

Telephone inquiries regarding this application should be directed to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197 or to the Examiner at (571) 272-1139. All official facsimiles should be transmitted to the centralized fax receiving number 571-273-8300.

### ***Priority***

2. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d). All of the CERTIFIED copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

### ***Information Disclosure Statement***

3. Note the attached PTO-1449 form submitted with the Information Disclosure Statement filed 10 NOV 2005.

### ***Drawings***

4. The drawings are objected to because of the following informalities:

- a. the recited incidence angles and curvature of the blades is poorly shown and not readily ascertained from any of the drawing figures – one or more perspective or other views that clearly show such subject matter should be provided.
  - b. Figure 5 contains foreign language wording and it is unclear from what surfaces or portions of the blade the angles are defined, i.e., the multiple lines (labeled and unlabeled) seen in Fig. 5 do not clearly show the claimed subject matter.
  - c. Figure 2 should be designated by a legend such as --**Prior Art**-- because only that which is old is illustrated. See MPEP § 608.02(g).
- Correction is required.
5. Applicant should verify that (1) all reference characters in the drawings are described in the detailed description portion of the specification and (2) all reference characters mentioned in the specification are included in the appropriate drawing Figure(s) as required by 37 CFR 1.84(p)(5).

#### **INFORMATION ON HOW TO EFFECT DRAWING CHANGES**

##### **Replacement Drawing Sheets**

Drawing changes must be made by presenting replacement figures which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments, or remarks, section of the amendment. Any replacement drawing sheet must be identified in the top margin as "Replacement Sheet" (37 CFR 1.121(d)) and include all of the figures appearing on the immediate prior version of the sheet, even though only one figure may be amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin.

### **Annotated Drawing Sheets**

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheets must be clearly labeled as "Annotated Marked-up Drawings" and accompany the replacement sheets.

### **Timing of Corrections**

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

### ***Specification***

6. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
7. The disclosure is objected to because of the following informalities:
  - a. The specification should have the following headings inserted therein at the appropriate locations in accordance with 37 CFR 1.77:

### **Arrangement of the Specification**

The following order or arrangement is preferred in framing the specification and, except for the title of the invention, each of the lettered items should be preceded by the headings indicated below.

- (a) Title of the Invention.
- (b) Cross-References to Related Applications (if any).
- (c) Statement as to rights to inventions made under Federally-sponsored research and development (if any).
- (d) Background of the invention.
  - 1. Field of the Invention.
  - 2. Description of the Related Art including information disclosed under 37 C.F.R. §§ 1.97-1.99.
- (e) Summary of the Invention.
- (f) Brief Description of the Drawing.
- (g) Description of the Preferred Embodiment(s).
- (h) Claim(s).
- (i) Abstract of the Disclosure.

Appropriate correction is required.

- 8. The abstract is acceptable.
- 9. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed (MPEP 606.01).

### ***Claim Rejections - 35 U.S.C. § 112, second paragraph***

- 10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1: the claim wording "the blades are curved in themselves" is indefinite – do the blades themselves have surface(s) that are curved or are the blades curved with respect to other structure such as the shaft?; "the angle of incidence  $\beta$ " lacks antecedent basis and this angle is defined with respect to what reference surface, axis, or plane (such as the longitudinal axis of the shaft?); "the outer diameter  $D_A$ " lacks antecedent basis.

Claim 2, line 2: "is maximum as large" is worded in an awkward and unclear manner.

Claim 3, line 2: "with increasing diameter" refers to the diameter of what element(s)?

Claim 4, line 3: "the angle of incidence R" lacks antecedent basis.

Claims 5-8: "the media", "the outer diameter  $D_W$ ", and "the outer diameter  $D_A$ " all lack antecedent basis.

12. Each pending claim should be thoroughly reviewed such that these and any other informalities are corrected so the claims may particularly point out and distinctly claim the subject matter which applicant regards as the invention, as required by 35 U.S.C. § 112, second paragraph. The claims are being treated on the merits to the extent they are understood and/or considered definite.

***Claim Rejections - 35 USC § 102***

13. The terms used in this respect are given their broadest reasonable interpretation in their ordinary usage in context as they would be understood by one of ordinary skill in the art, in light of the written description in the specification, including the drawings, without reading into the claim any disclosed limitation or particular embodiment. See, e.g., *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004); *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000); *In re Morris*, 127 F.3d 1048, 1054-55 (Fed. Cir. 1997); *In re Zletz*, 893 F.2d 319, 321-22 (Fed. Cir. 1989).

The Examiner interprets claims as broadly as reasonable in view of the specification, but does not read limitations from the specification into a claim. *Elekta Instr. S.A.v.O.U.R. Sci. Int'l, Inc.*, 214 F.3d 1302, 1307 (Fed. Cir. 2000). "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. Inc. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987).

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:



A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**15. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 1118959.**

DE 1118959 discloses a mixing device for media with shafts 9, 20; blades 3 mounted on the shafts; the blades being twisted or curved along an axis thereof such that the incidence angles with respect to the axis of the shaft differ between the point of attachment to the shaft and the outer end of the blades as seen in Figure 1 thereby imparting the recited axial speed to the media during mixing in the device.

***Claim Rejections - 35 USC § 103***

16. To determine whether subject matter would have been obvious, "the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved .... Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented."

*Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 (1966).

The Supreme Court has noted:

Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.

*KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1740-41 (2007). "Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." (Id. at 1742).

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**19. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonnell (US 2,017,116).**

Bonnell discloses a mixing device for media with a shaft 31; blades 32 mounted on the shaft; the blades being twisted or curved along an axis thereof such that the

incidence angles with respect to the axis of the shaft differ between the point of attachment to the shaft and the outer end of the blades as seen in Figure 1 thereby imparting the recited axial speed to the media during mixing in the device (col. 3, lines 46-65); the angles may be varied as desired to suit various operating conditions (col. 3, lines 54-60); and the blades having curved outer ends (Fig. 2). Bonnell does not show the multiple shafts. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have duplicated the shaft and blade arrangement of Bonnell to provide any number of desired shaft and blade assemblies, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

**20. Claims 1, 2, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oda (US 4,344,692).**

Oda discloses a mixing device for media with a shaft 27; blades 31 or 32 mounted on the shaft; the blades being mounted on the shaft such that the incidence angles with respect to the axis of the shaft are the same or as large as each other between the point of attachment to the shaft and the outer end of the blades as seen in Figures 1 and 5 thereby imparting the recited axial speed to the media during mixing in the device; and the blades 31 having curved outer ends (Figs. 1-2). Oda does not show the multiple shafts. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have duplicated the shaft and blade arrangement of Oda to provide any number of desired shaft and blade assemblies,

since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, supra.

***Allowable Subject Matter***

21. None.

***Conclusion***

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Cooley in Art Unit 1797 whose telephone number is (571) 272-1139. The examiner can normally be reached on Mon-Fri.. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Charles E. Cooley/

Charles E. Cooley  
Primary Examiner  
Art Unit 1797

21 January 2009